



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-1480; Project Identifier MCAI-2022-00548-T; Amendment 39-22343; AD 2023-03-18]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc., Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Bombardier, Inc., Model BD-100-1A10 airplanes. This AD was prompted by reports of cracks found in the tailcone upper firewall where the auxiliary power unit (APU) muffler electrical bonding strap is attached. This AD requires a detailed visual inspection of the tailcone upper firewall for defects, rework by replacement of the APU electrical bonding strap, and repair if necessary. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-1480; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the

mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For service information identified in this final rule, contact Bombardier Business Aircraft Customer Response Center, 400 Côte Vertu Road West, Dorval, Québec H4S 1Y9, Canada; phone: (514) 855-2999; email: ac.yul@aero.bombardier.com; website: bombardier.com.
- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call (206) 231-3195. It is also available at regulations.gov under Docket No. FAA-2022-1480.

FOR FURTHER INFORMATION CONTACT: Yaser Osman, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (516) 228-7300; email: 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc., Model BD-100-1A10 airplanes. The NPRM published in the *Federal Register* on November 18, 2022 (87 FR 69225). The NPRM was prompted by AD CF-2022-19, dated April 19, 2022, issued by Transport Canada, which is the aviation authority for Canada (referred to after this as the MCAI). The MCAI states that cracks were found in the tailcone upper firewall where the APU muffler electrical bonding strap is attached. Crack initiation is

related to the rigid electrical bonding strap. A crack in this area, if not addressed, could result in a breach of the firewall, which could allow a fire to propagate; reduced lightning strike protection, which could affect the airplane's grounding and potentially cause a fire; and increased radio interference during flight, which could reduce the ability of the flightcrew to maintain the safe flight and landing of the airplane.

In the NPRM, the FAA proposed to require a detailed visual inspection of the tailcone upper firewall for defects, rework by replacement of the APU electrical bonding strap, and repair if necessary. The FAA is issuing this AD to address cracking in the tailcone upper firewall. The unsafe condition, if not addressed, could result in a breach of the firewall, which could allow a fire to propagate; reduced lightning strike protection, which could affect the airplane's grounding and potentially cause a fire; and increased radio interference during flight, which could reduce the ability of the flightcrew to maintain the safe flight and landing of the airplane.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-1480.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on this product. Except for minor

editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information under 1 CFR Part 51

The FAA reviewed Bombardier Service Bulletin 100-53-35, dated December 6, 2021; and Service Bulletin 350-53-004, dated December 6, 2021. This service information specifies procedures for doing a detailed visual inspection of the tailcone upper firewall for defects, including cracking, reworking the APU electrical bonding strap by replacing it with a new flexible APU muffler jumper cable assembly, and repairing the tailcone upper firewall. These documents are distinct since they apply to different airplane configurations.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

Costs of Compliance

The FAA estimates that this AD affects 691 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
1 work-hour X \$85 per hour = \$85	\$36	\$121	\$83,611

The FAA estimates the following costs to do any necessary on-condition actions that would be required based on the results of any required action. The FAA has no way of determining the number of aircraft that might need these on-condition actions:

Estimated costs of on-condition actions

Labor cost	Parts cost	Cost per product
24 work-hours X \$85 per hour = \$2,040	\$0*	\$2,040

* The FAA has received no definitive data on which to base the cost estimates for the parts specified in this AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2023-03-18 Bombardier, Inc.: Amendment 39-22343; Docket No. FAA-2022-1480; Project Identifier MCAI-2022-00548-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc., Model BD-100-1A10 airplanes, certificated in any category, serial numbers 20003 through 20500 inclusive and 20501 through 20916 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by reports of cracks found in the tailcone upper firewall where the auxiliary power unit (APU) muffler electrical bonding strap is attached. The FAA is issuing this AD to address cracking in the tailcone upper firewall. The unsafe condition, if not addressed, could result in a breach of the firewall, which could allow a

fire to propagate; reduced lightning strike protection, which could affect the airplane's grounding and potentially cause a fire; and increased radio interference during flight, which could reduce the ability of the flightcrew to maintain the safe flight and landing of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection, Replacement, and Corrective Actions

Within 48 months after the effective date of this AD: Do a detailed visual inspection of the tailcone upper firewall for defects, including cracking, rework the APU electrical bonding strap by replacing with a new flexible APU muffler jumper cable assembly, and repair the tailcone upper firewall, as applicable, in accordance with paragraphs 2.B., 2.C., and 2.D., of the Accomplishment Instructions of the applicable service information specified in figure 1 to paragraph (g) of this AD. Do all applicable repairs before further flight.

Figure 1 to paragraph (g) – Service Information

Airplane Serial Number–	Bombardier Service Bulletin–
20003 through 20500 inclusive	100-53-35, dated December 6, 2021
20501 through 20916 inclusive	350-53-004, dated December 6, 2021

(h) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the New York ACO Branch, mail it to ATTN: Program Manager, Continuing Operational Safety, at the address identified in

paragraph (i)(2) of this AD or email to: 9-avs-nyaco-cos@faa.gov. If mailing information, also submit information by email. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada; or Bombardier, Inc.'s Transport Canada Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(i) Additional Information

(1) Refer to Transport Canada AD CF-2022-19, dated April 19, 2022, for related information. This Transport Canada AD may be found in the AD docket at regulations.gov under Docket No. FAA-2022-1480.

(2) For more information about this AD, contact Yaser Osman, Aerospace Engineer, Airframe and Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (516) 228-7300; email: 9-avs-nyaco-cos@faa.gov.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Bombardier Service Bulletin 100-53-35, dated December 6, 2021.

(ii) Bombardier Service Bulletin 350-53-004, dated December 6, 2021.

(3) For Bombardier service information identified in this AD, contact Bombardier Business Aircraft Customer Response Center, 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; phone: (514) 855-2999; email: ac.yul@aero.bombardier.com; website: bombardier.com.

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call (206) 231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on February 10, 2023.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2023-04026 Filed: 2/27/2023 8:45 am; Publication Date: 2/28/2023]